Chapter 2

PROGRAM IMPLEMENTATION

Coming together is a beginning;
keeping together is progress;
working together is success.
HENRY FORD

PROGRAM IMPLEMENTATION

The Comprehensive Health Education and Physical Education Task Force, convened to develop this *Framework*, spent many hours discussing how New Jersey school districts structure the delivery of health and physical education instruction. New Jersey school districts continue to have a tremendous amount of discretionary power to determine how curricular content will be taught, who will teach it (within the scope of existing licensure regulations) and what materials will be used to support instruction. However, for the first time, the *Core Curriculum Content Standards* provide New Jersey school districts with more specific direction, outlining the content that every student in our public schools must experience.

Instructional program delivery varies at the elementary and secondary levels. Many factors contribute to this variation. At the secondary level, programs tend to be implemented by departmentalized content specialists. At the elementary level, the comprehensive health and physical education program may be implemented by the classroom teacher, with the assistance of a content specialist. Additionally, school facilities may impact the delivery of instruction. Most high schools have dedicated gymnasiums with separate food service facilities. Many elementary schools provide physical education instruction in an "all-purpose" room that serves as the hub for lunch, school assemblies, and special exhibits such as science fairs. This practice may limit the number of hours per day the facility can be used for physical education instruction. Teachers in rural or suburban schools may be able to compensate by taking students outside for structured activities. Their counterparts in urban areas may not have access to safe playgrounds, open play areas, and athletic fields.

The following review of program models may help school districts as they examine their existing health and physical education program and consider possible changes to accommodate meeting the *Standards*. The models presented should not be viewed as an endorsement of a particular model; rather, they illustrate various modes of instruction already in place in New Jersey schools.

AT THE ELEMENTARY LEVEL (K-6)

The classroom teacher instructs all "special" subjects (e.g., art, health, physical education).

Advantages

The classroom teacher can integrate instruction in all content areas. It provides for flexible scheduling and enables the teacher to relate content to actual classroom activity (e.g., address conflict management when fights occur, reinforce hand washing).

Disadvantages

The classroom teacher has minimal preparation in health and physical education. This lack of professional preparation translates into less emphasis on content and skills, especially in areas considered sensitive or controversial. The teacher is more likely to concentrate on what "gets tested" rather than on important concepts and skills. Due to a lack of knowledge and skills in physical education,

the classroom teacher may focus on games and unstructured play instead of developmentally appropriate movement and fitness activities. In addition, classroom teachers may not be familiar with the safe use of equipment used in physical education activities.

The classroom teacher is responsible for health instruction. The content specialist teaches physical education.

Advantages

Once again, this approach supports interdisciplinary instruction and links instruction to classroom life. It allows the physical education specialist to focus on specialized movement and fitness content and skills.

Disadvantages

The classroom teacher and the physical education specialist must collaborate to support related instruction. This may be difficult to accomplish if the specialist teaches at several schools. Unless the classroom teacher is committed to health instruction, the subject may not be taught in sufficient depth to meet the *Standards*.

The classroom teacher and the certified school nurse share health instructional responsibilities. The content specialist teaches physical education.

Advantages

The certified school nurse has a strong background in health content and can be most helpful to the classroom teacher. The school nurse is able to connect classroom behavior and health room behavior and adjust instruction accordingly. Additionally, the school nurse is more comfortable addressing sensitive issues.

Disadvantages

The school nurse's schedule may preclude regular instruction or may interrupt instruction if emergencies arise. Because of the classroom teacher's discomfort or lack of professional preparation, the school nurse may be assigned to deliver instruction in family life education. This creates a fragmented approach to instruction rather than an integrated one. This approach requires both parties to jointly plan instruction; this may be difficult if the school nurse serves more than one school.

The certified school nurse teaches health.
The content specialist teaches physical education.

Advantages

This approach uses professionally prepared staff to deliver health and physical education instruction. Instruction can be delivered in an integrated manner, using a wellness approach. The school nurse can use his/her expertise in healthcare to bridge the gap between knowledge and application. The physical educator can focus on developmentally appropriate practices in movement and fitness.

Disadvantages

The school nurse may be required to "travel"—that is, move from classroom to classroom with no home base. This limits the use of some materials and classroom strategies. The school nurse, the physical educator, and the classroom teacher need to schedule planning meetings to discuss issues and concerns that require reinforcement by the classroom teacher. This may be difficult to accomplish due to scheduling and school building assignments. When the school nurse teaches, emergencies may interrupt instruction. For such instances, contingency plans must be developed to provide classroom coverage and instruction.

AT THE SECONDARY LEVEL (7-12)

The certified school nurse teaches health.
The content specialist teaches physical education.

Advantages

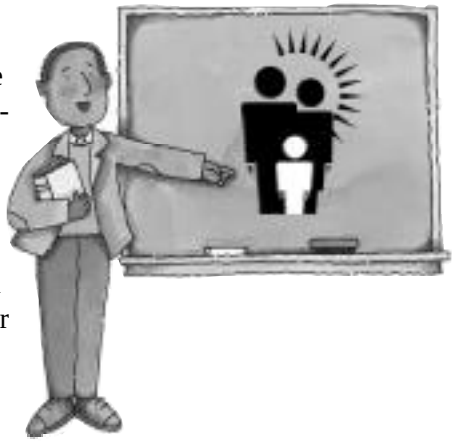
As movement and fitness instruction becomes more complex, the physical educator can

ıd management issues and focus on more difficult content and skills. ool nurse can use his/her background to address the myriad of sensitive and complex issues presented by adolescents. This team approach can provide students with instruction that is accurate, wellness-focused and sensitive to their developing needs.

Disadvantages

Instruction may be fragmented; a team approach is needed to avoid this pitfall. The physical educator and school nurse may not be supervised by the same administrator, making collaboration more difficult. The school nurse may have additional responsibilities at this level (e.g., core team) that preclude a regular instructional commitment. Additionally, secondary school physical education teachers often focus on interscholastic athletics rather than classroom instruction.

A variety of subject area teachers (e.g., science, family and consumer science, social studies) provide health instruction. The content specialist teaches physical education.



Advantages

The science teacher has a strong background in the life sciences. The family and consumer science teacher has strong preparation in nutrition, family health issues, and parenting. The social studies teacher has a strong background in sociological and psychological principles that impact relationships. This approach provides for a natural integration of related areas and increases interdisciplinary opportunities. The physical educator focuses on developmental movement and fitness applications and can work with the other instructors to reinforce movement theory.

Disadvantages

The science teacher may focus on life science approaches to the exclusion of skill-based instruction (e.g., refusal skills, negotiation skills). All teachers have a responsibility to teach critical inquiry and problem solving; however, subject area teachers are less likely to teach these strategies from a health perspective. It is important that these skills be taught within a situational context so students can readily apply them when needed. Collaboration with the physical educator may be difficult.

The health and physical education specialist teaches one semester of health and one semester of physical education or teaches a combined program 3-5 days per week.

Advantages

This approach enables the teacher to coordinate instruction during the entire school year. If facilities allow, the program can be structured to provide content and skill instruction on separate days.

Disadvantages

This approach may provide only one-half year of physical activity. Students tend to lose skills over time. If the content is organized as separate courses, it may be difficult to facilitate the mastery of important interpersonal skills (e.g., refusal skills) that need constant practice and reinforcement. In some schools, more time is devoted to games and sports in physical education than to important health and fitness concepts.

The health and physical education specialist teaches both areas in a concentrated block (e.g. 90-minute classes for one-half year).

Advantages

The extended class period allows the teacher to implement a conceptual physical education program, one that emphasizes the skills and concepts to become an intelligent consumer of physical activity. This approach links health and physical education and allows more time for discussion, project work, technological approaches, and critique.

Disadvantages

Students participate in physical activity for only one-half year. This approach may have a minimal impact on fitness and skill development. Because the course is limited to one-half year, it does not allow the teacher to address relevant health issues that arise during the school year.

INTERDISCIPLINARY OR THEMATIC INSTRUCTION

For the purpose of this *Framework*, ***interdisciplinary instruction*** occurring within the context of health education and physical education means that the central theme and content of instruction is determined by the content specialist (e.g., the physical education teacher or health educator). Various aspects of that content are taught within the context of other subject areas. The health and physical education content specialist(s) retains accountability to ensure that all students receive adequate preparation to meet the *Standards*. Collaboration is the key to this kind of instructional program. Examples of interdisciplinary approaches for health education are listed in the following chart (Figure 2). Figure 3 illustrates how a specific health topic, HIV/AIDS, can be integrated into a number of content areas.

Figure 2

INTERDISCIPLINARY ACTIVITIES FOR HEALTH EDUCATION

Discipline	Growth and Development	Mental Health	Nutrition
Visual and Performing Arts	Study the impact of music on learning	Express feelings through dance.	Compose song jingles that encourage eating breakfast.
Language Arts Literacy	Research advances in growth technology.	Role-play emotions.	Read and interpret food labels.
World Languages	Learn roots used in medical terminology.	Learn three complimentary phrases in another language.	Identify non-English food names.
Mathematics	Chart growth patterns.	Make a pie graph of moods.	Calculate caloric needs and intake.
Physical Education	Understand the effects of exercise on cardiovascular system.	Describe emotions experienced when winning a game.	Cite relationships between fitness and diet.
Science	Describe the physiology of body systems.	Describe influence of hormones on emotions.	Identify essential nutrients and their effects on body systems.
Social Studies	Describe important medical inventions.	Contrast institutional vs. home care for persons with mental health disabilities.	Identify cultural influences on dietary patterns.
Technology	Measure heart rate and blood pressure.	Describe the impact of video games on violent behavior.	Analyze diet using nutrition software.

Figure 2 *(continued)*

Discipline	Environmental Health	Family Life/Sexuality	Diseases/Disorders
Visual and Performing Arts	Develop an environmental calendar using photos.	Analyze song lyrics for sexual messages.	Select artwork for residents of a nursing home.
Language Arts Literacy	Prepare a speech on an environmental issue.	Read about families.	Write a story about what it means to be ill.
World Languages	Research how to deal with health problems when in another country.	Write to a pen pal about family traditions.	Describe, in another language, the signs & symptoms of the common cold.
Mathematics	Calculate levels of air or water pollution.	Calculate the costs of raising a child.	Graph the national death rates from cancer and heart disease and discuss their significance.
Physical Education	Design an environmentally sensitive playground.	Plan and take a family outing.	Demonstrate exercises that tone muscles and describe how the exercises might be used after a stroke or injury.
Science	Compare the health hazards of pesticides.	Trace fetal development.	Examine pathogens under a microscope and relate to disease conditions.
Social Studies	Produce videos showing environmental hazards in the community.	Discuss government regulations that impact families.	Discuss the long-term effects of diseases on society.
Technology	Analyze environmental data for a presentation.	Discuss how technology impacts family life.	Describe ways technology is used to diagnose and treat diseases.

Figure 2 *(continued)*

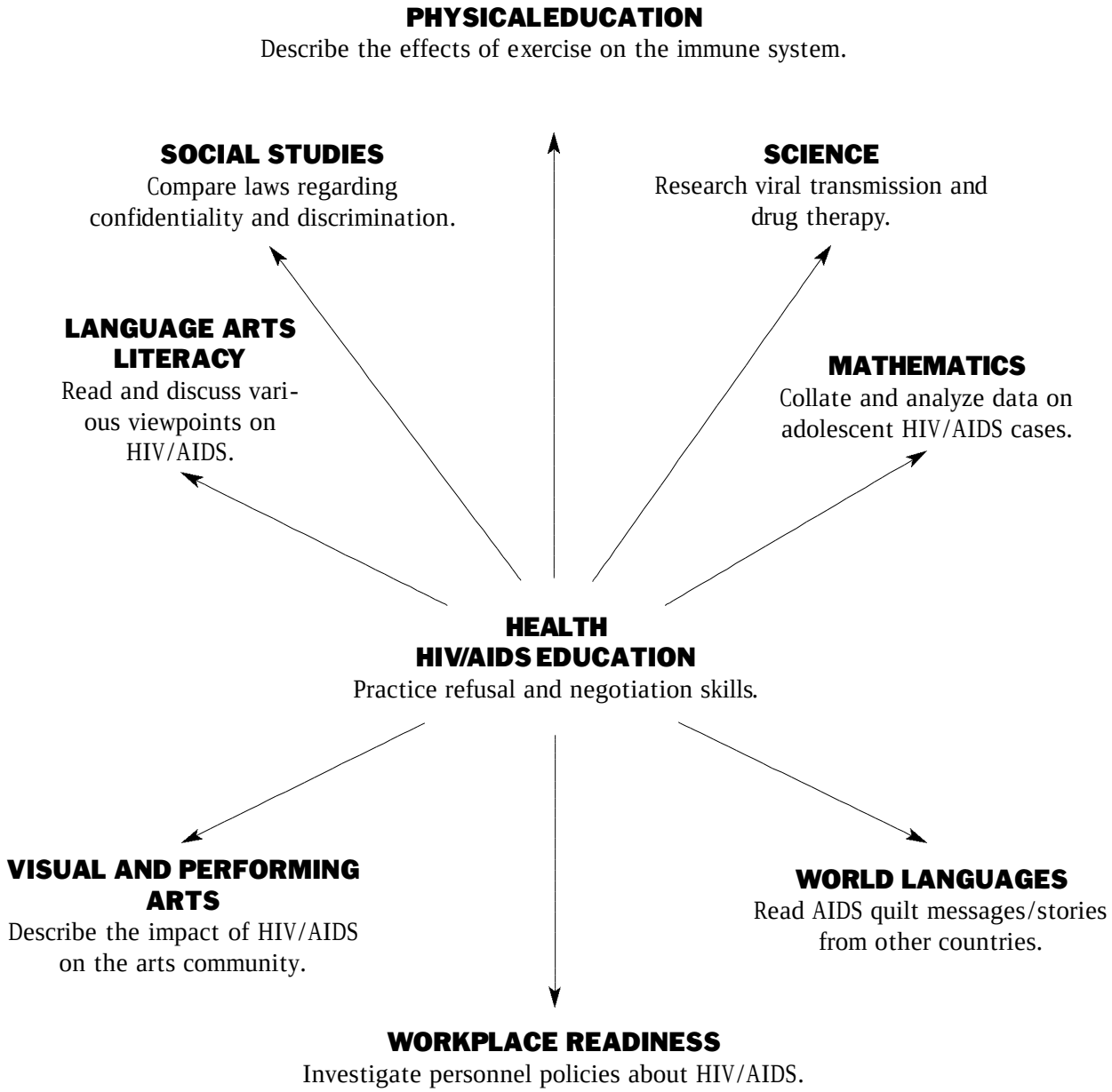
Discipline	Consumer Health	Alcohol, Tobacco, and Other Drugs	Injury Prevention and Safety
Visual and Performing Arts	Identify music used to sell products.	Describe the influence of substance use on music.	Develop an injury prevention program for dancers.
Language Arts Literacy	Read product labels and warnings.	Debate the legalization of marijuana.	Outline first aid techniques.
World Languages	Read menus in another language.	Read alcohol ads from non-English magazines.	Practice asking for help in other languages.
Mathematics	Calculate an annual budget for healthcare products.	Calculate the rate at which an individual metabolizes alcohol.	Calculate the costs of ambulance services for one year.
Physical Education	Evaluate fitness equipment.	Describe the effects of substance use on performance.	Demonstrate first aid for common injuries.
Science	Know the chemical names for common ingredients in medicines.	Describe the effects of volatile chemicals.	List hazards and safety procedures when performing classroom science experiments.
Social Studies	Cite lobbying techniques to change consumer laws.	Explain the effects of substance use/abuse on society.	Describe a major disaster and the government's response.
Technology	Analyze constraints when purchasing a computer.	Graph the use of alcohol by age group.	Identify safe procedures for using technology.

Figure 2 *(continued)*

Discipline	Community Health	Health Promotion
Visual and Performing Arts	Create a logo for a health organization.	Describe how music can be relaxing.
Language Arts Literacy	Create a health brochure.	Write a poem about a positive health behavior.
World Languages	Study the healthcare system in another country.	Describe health practices in another country.
Mathematics	Determine the ratio of services provided by a given agency to a target population.	Graph personal improvement in a fitness program.
Physical Education	Evaluate recreational facilities in the community.	Develop a personal fitness plan.
Science	Discuss science organizations that support community health.	Explain how stress affects the body.
Social Studies	List community resources for health information.	Analyze the impact of disease prevention efforts on society.
Technology	Catalog and advertise volunteer opportunities in the community.	Develop a risk assessment program.

Figure 3

INTERDISCIPLINARY UNIT: HIV/AIDS **GRADE LEVEL: 10**



KEY ELEMENTS OF EFFECTIVE PROGRAMS

The implementation of the *Core Curriculum Content Standards* requires an understanding of the elements that comprise an effective health education and physical education program. For the most part, the professional literature considers health education and physical education as separate entities. This distinction is clearly evident at the national level, where two separate standards documents were developed and sponsored by different professional organizations.

The *National Health Education Standards: Achieving Health Literacy* was developed by a committee of health education professionals from higher education, non-profit organizations, school districts, and state agencies. The national document was supported by the Association for the Advancement of Health Education (AAHE, now known as the American Association for Health Education), the American School Health Association (ASHA), and the American Public Health Association (APHA) and sponsored by the American Cancer Society (ACS). There are seven national standards, each supported by a rationale and numerous performance indicators. The standards focus on knowledge of health content as well as the application of health skills.

Moving into the Future: The National Physical Education Standards was developed by the National Association for Sport and Physical Education (NASPE). A book of voluntary national standards for students in grades K-12, the document is based on the *Outcomes of Quality Physical Education Programs* developed in 1992 by a task force of content experts convened by NASPE. The document presents both content standards and performance standards to address what a physically educated person should know and be able to do.

Both documents were used as references by the *New Jersey Core Curriculum Content Standards* development committee. New Jersey educators should become familiar with the national standards in an effort to better understand the origins of our state *Standards*. A more detailed summary of both documents appears in Appendix D. In this section of the *Framework*, the critical elements of each discipline are discussed separately.

Comprehensive Health Education

According to the Centers for Disease Control and Prevention (CDC), Division of Adolescent and School Health (DASH), *school health education* is a documented, planned, and sequential instructional program for students in Grades K-12 that:

- Addresses and integrates the full range of categorical health problems and issues;
- Is age and developmentally appropriate and is taught at each grade level;
- Focuses on the acquisition of important personal, interpersonal, and life skills;
- Is taught by a trained teacher;
- Is coordinated and managed by an education professional;
- Engages parents and community members; and
- Is periodically reviewed, evaluated, updated, and improved.

Additionally, comprehensive school health education focuses on priority factors that interfere with learning and well-being (Allensworth, Symons, & Olds, 1994). An effective program arms students with the knowledge and skills to avoid the use of alcohol, tobacco, and other drugs; establish healthy

dietary and exercise patterns; employ strategies to prevent intentional and unintentional injuries; and refrain from sexual behaviors that place one at risk for HIV infection, STDs, and unintended pregnancy. Comprehensive school health education is a primary prevention strategy, grounded in both public health and education. It is driven by the needs of students and the community in which they live, play, learn, and work (Marx & Northrup, 1995).

An ever-growing body of research supports comprehensive school health education. Health education programs are constantly reviewed as part of the CDC's Research to Classroom Project. Consistent with CDC's practice of applying research findings to prevent disease and injuries, DASH identifies curricula that show credible evidence of supporting health-enhancing behaviors in our nation's youth. Once programs are identified, CDC provides resources and training for interested states, agencies, and school districts. CDC does not endorse curricula; rather, the **Programs *That Work*** research project provides school districts with research-based information to use when making curricular decisions (CDC, 1998). The criteria used by the CDC to evaluate school health education programs are outlined in Figure 4.

Figure 4

Programs *That Work*: Effective School Health Education Programs

- Are student centered;
- Utilize multiple learning theories and models to support and promote health-enhancing behaviors;
- Focus on the six priority behaviors identified by the CDC;
- Clearly relate to educational outcomes such as school attendance and completion;
- Promote social skills to address a variety of issues and problems;
- Involve peers in mentoring and cross-age teaching;
- Reinforce and recognize positive behaviors;
- Incorporate reading, writing, speaking, listening, and viewing;
- Use discovery and hands-on learning strategies;
- Build self-esteem and self-efficacy;
- Emphasize the intrinsic value of wellness;
- Offer repeated chances to develop, demonstrate, practice, and master social skills;
- Are culturally, ethnically, and gender sensitive;
- Use cooperative learning and team-building strategies;
- Link to the other elements of a coordinated school health program;
- Are supported and reinforced by health-promoting school policies (e.g., substance abuse policies), environmental changes (e.g., lighting, safety), intervention services (e.g., substance awareness coordinator, school nurse), and appropriate role models; and
- Are current, relevant, and accurate.

Comprehensive school health education "bridges the gap" between what students need and what students want. To ignore the personal needs of our students and social needs of our society is to abdi-

cate our responsibility. Schools are ideally positioned to effect change, to observe emerging health and social problems and to serve as the student's primary source of accurate information (Marx & Northrup, 1995). Effective comprehensive school health education can have a positive effect on the school's ability to teach and the student's ability to learn.

Physical Education

The relationship between physical activity and health has never been more clearly outlined. In 1996, the Surgeon General of the United States issued a major report entitled *Physical Activity and Health: A Passport to Good Health for All Americans.* This document serves as a significant contribution to our body of knowledge about activity and wellness. In the introduction, Donna E. Shalala, Secretary of Health and Human Services, urges families to "...weave physical activity into the fabric of their daily lives" (CDC, 1996). New Jersey schools are well positioned in this regard. *The Comprehensive Health Education and Physical Education Curriculum Content Standards* require New Jersey schools to develop a planned and sequential physical education program that fosters lifelong commitment to physical activity.

Regular physical activity greatly reduces the risk of coronary heart disease, which is the leading cause of death in the United States. Physical activity enhances one's mental health by reducing stress as it fosters the development of healthy bones and joints. Unfortunately, here is a description of the current state of physical activity, taken from the Surgeon General's Report (CDC, 1996).

> Most Americans today are spared the burden of excessive physical labor. Few occupations today require significant physical activity and most people use motorized transportation to get to work and to perform routine errands and tasks. Even leisure time is filled with sedentary behaviors such as watching television, "surfing the Internet," and playing video games.

Physical education programs are one means to reduce the incidence of life-threatening disease—an educational response to a public health challenge. Supervised physical activity, such as that occurring in school physical education programs, provides students with opportunities to explore and refine a wide range of life-enhancing physical activities that can become part of the student's daily routine. School-based physical education is the most widely available resource for promoting physical activity among New Jersey's young people.

The *Standards* support the notion that physical education is an academic core subject. With this belief comes accountability. The *Standards* clearly establish levels of achievement and affirm that mere participation in physical activity is not the same as education. We must embrace a new philosophy of physical education, one that emphasizes the principles of movement, fitness, and wellness and empowers students to incorporate physical activity into the fabric of their daily lives. Recent research by Dale, Corbin and Cuddihy (1998) demonstrates that *conceptual physical education,* a program that combines a cognitive, theory-based approach with a sport-based approach, enhances participation in physical activity. Although the research is limited, this methodology seems compatible with the the demands set forth by the *Standards*. Figure 5 summarizes the key elements of effective physical education programs (CDC, 1996).

Figure 5

Effective Physical Education Programs

- Develop basic movement and sport skills;
- Focus on critical life skills such as goal setting, self-assessment, and self-monitoring;
- Assist students to improve their health-related fitness;
- Improve social interaction;
- Emphasize cooperative activities over competitive ones;
- Enhance problem solving and critical thinking;
- Promote confidence in one's abilities;
- Emphasize and foster participation and enjoyment;
- Include extended periods of activity balanced with periods of rest and recovery;
- Involve parents, community members, healthcare providers, business, and industry;
- Provide adequate time for explanation, demonstration, practice, reinforcement, and feedback;
- Utilize activities and teaching methods that are age and developmentally appropriate;
- Utilize a wide variety of movement and fitness experiences at varying intensity and difficulty levels;
- Include individual and team activities;
- Consider children's changing capacities to move based on developmental status, previous experiences, skill level, body size, body type, and age;
- Distinguish between physical education and free play, recess, and athletics;
- Use fitness testing as one tool for assessment and planning;
- Modify the rules, equipment, and playing space of adult games and sports to match the abilities of students;
- Provide equal program access to males and females;
- Are culturally and ethnically sensitive;
- Are taught by trained/certified physical education specialists;
- Focus on what students can do, not what they cannot do;
- Adapt activities for students with special needs;
- Stress the safe use of equipment and facilities;
- Comply with federal, state, and local health and safety regulations;
- Support the positive benefits of exercise, never using exercise as punishment;
- Use multiple learning theories/strategies;
- Incorporate reading, writing, listening, viewing, and speaking; and
- Emphasize the short-term and long-term health benefits of physical activity.

SUMMARY

Comprehensive health education and physical education are complementary disciplines with the com-

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